

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

What is claimed is:

1. (Previously Presented) A vibration isolator, comprising:
a housing that has an outer non-circular seat and an inner chamber;
a support plate that has a non-circular shoulder that seats within said non-circular seat of said housing and can move in an axial direction relative to said housing, said non-circular support plate shoulder seats within said non-circular seat of said housing and prevents rotation of said support plate when said inner chamber is deflated; and,
a vibration isolator coupled to said support plate.
2. (Original) The vibration isolator of claim 1, wherein said outer non-circular seat has a tapered surface.
3. (Original) The vibration isolator of claim 1, wherein said pendulum assembly includes a cable that is coupled to a piston and said support plate, said piston being coupled to said housing.
4. (Original) The vibration isolator of claim 3, wherein said housing has an inner non-circular seat and said piston has a non-circular outer top surface.
5. (Previously Presented) The vibration isolator of claim 3, wherein said housing includes an inner cylinder which defines said inner chamber and is located within a second inner chamber, said piston being located within said inner chamber.

6. (Original) The vibration isolator of claim 5, wherein said inner cylinder includes a damping element.

7. (Original) The vibration isolator of claim 3, wherein said piston has an inner cavity that contains a damping fluid.

8. (Original) A vibration isolator, comprising:
a housing that has an inner non-circular seat and an inner chamber;
a support plate that can move in an axial direction relative to said housing;
a piston that has a non-circular outer surface that seats within said non-circular seat of said housing and prevents rotation of said support plate when said inner chamber is inflated; and,
a vibration isolator coupled to said piston and said support plate.

9. (Original) The vibration isolator of claim 8, wherein said inner non-circular seat includes a tapered surface.

10. (Original) The vibration isolator of claim 8, wherein said housing has an outer non-circular seat and said support plate has a non-circular shoulder.

11. (Previously Presented) The vibration isolator of claim 8, wherein said housing includes an inner cylinder which defines said inner chamber and is located within a second inner chamber, said piston being located within said inner chamber.

12. (Original) The vibration isolator of claim 11, wherein said inner cylinder includes a damping element.

13. (Original) The vibration isolator of claim 8, wherein said piston has an inner cavity that contains a damping fluid.

14. (Previously Presented) A vibration isolator, comprising:
a housing that has outer alignment means and an inner chamber;
a support plate that can move in an axial direction relative to said housing, said support plate has means for seating said support plate with said outer alignment means

of said housing so that said support plate does not rotate when said inner chamber is deflated; and,

a vibration isolator coupled to said support plate.

15. (Original) The vibration isolator of claim 14, wherein said pendulum assembly includes a cable that is coupled to a piston and said support plate, said piston being coupled to said housing.

16. (Original) The vibration isolator of claim 15, wherein said housing has inner alignment means and said piston has means for aligning with said housing.

17. (Previously Presented) The vibration isolator of claim 15, wherein said housing includes an inner cylinder which defines said inner chamber and is located within a second inner chamber, said piston being located within said inner chamber.

18. (Original) The vibration isolator of claim 17, wherein said inner cylinder includes a damping element.

19. (Original) The vibration isolator of claim 15, wherein said piston has an inner cavity that contains a damping fluid.

20. (Original) A vibration isolator, comprising:
a housing that has inner alignment means and an inner chamber;
a support plate that can move in both an axial and rotational direction relative to said housing;

a piston that can move in an axial direction, said piston has alignment means for seating said piston with said inner alignment means of said housing so that said piston does not rotate when said inner chamber is inflated; and,

a vibration isolator coupled to said piston and said support plate.

21. (Original) The vibration isolator of claim 20, wherein said housing has outer alignment means and said support plate has means for aligning with said housing.

22. (Original) The vibration isolator of claim 20, wherein said housing includes an inner cylinder which defines said inner chamber and is located within a second inner chamber, said piston being located within said inner chamber.

23. (Original) The vibration isolator of claim 22, wherein said inner cylinder includes a damping element.

24. (Original) The vibration isolator of claim 20, wherein said piston has an inner cavity that contains a damping fluid.

25. (Previously Presented) A method for aligning a support plate of a pneumatic vibration isolator, comprising:

releasing a fluid from a housing of a vibration isolator such that a support plate becomes seated within a non-circular seat of the housing and cannot rotate, the support plate being coupled to a vibration isolator.

26. (Original) The method of claims 25, further comprising attaching a payload to the support plate.

27. (Canceled)

28. (Canceled)

29. (Original) The vibration isolator of claim 1, wherein said vibration isolator includes a pendulum assembly.

30. (Previously Presented) The vibration isolator of claim 8, wherein said vibration isolator includes a cable coupled to said piston.

31. (Previously Presented) The vibration isolator of claim 14, wherein said vibration isolator includes a pendulum assembly.

32. (Previously Presented) The vibration isolator of claim 20, wherein said vibration isolator includes a cable coupled to a piston.

33. (Previously Presented) The method of claim 25, wherein the vibration isolator includes a pendulum assembly.